

## Claims

What is claimed is:

1. A modular hip prosthesis, comprising:
  - an elongated stem extending from a proximal region to a distal region;
  - a proximal body having a threaded section and being removable connectable to the stem;
  - a neck connectable to the proximal region of the stem;
  - an expandable collet positionable between the stem and proximal body; and
  - a locking member having threads adapted to engage the threaded section to lock the proximal body and collet together and to the stem.
2. The modular hip prosthesis of claim 1 wherein the locking member is a cylindrical nut with external threads.
3. The modular hip prosthesis of claim 2 wherein the proximal body includes a bore, and the threaded section is located in the bore.
4. The modular prosthesis of claim 3 wherein the collet forms a taper fit with the proximal body below the threaded section.
5. The modular hip prosthesis of claim 1 wherein the neck is rotationally adjustable about the stem.
6. The modular hip prosthesis of claim 5 wherein the neck is removable connectable to the stem.

7. The modular prosthesis of claim 6 wherein the proximal body is axially adjustable about the stem.
8. The modular prosthesis of claim 7 wherein the proximal body is rotationally adjustable about the stem.
9. A modular hip prosthesis, comprising:
  - a femoral stem extending from a proximal region to a distal region;
  - a neck being rotationally adjustable about the stem;
  - a proximal body being both rotationally and axially adjustable about the stem;
  - a flexible sleeve lockingly engageable between stem and proximal body; and
  - a locking member adapted to engage the proximal body and lock the proximal body to the stem.
10. The modular hip prosthesis of claim 9 wherein the proximal body includes a threaded section located along an internal longitudinal bore, and the locking member engages the threaded section.
11. The modular hip prosthesis of claim 10 wherein the locking member is positionable over the stem and includes external threads that threadably engage the threaded section of the proximal body.
12. The modular hip prosthesis of claim 11 wherein the locking member has a ring shape.
13. The modular hip prosthesis of claim 9 wherein the proximal body and neck are removeably connectable to the stem.

14. The modular hip prosthesis of claim 9 wherein the neck taper locks to the proximal region of the stem.
15. The modular hip prosthesis of claim 14 wherein the proximal body taper locks to the sleeve.
16. A modular hip prosthesis, comprising:
  - a stem extending from a proximal end to a distal end;
  - a neck being rotationally adjustable about the stem and removeably connected to the proximal end of the stem;
  - a proximal body being both rotationally and axially adjustable about the stem;
  - a sleeve positionable between the stem and the proximal body; and
  - a locking member adapted to lock the proximal body and sleeve to the stem.
17. The modular hip prosthesis of claim 16 wherein the proximal body, sleeve, and locking member are separate components.
18. The modular hip prosthesis of claim 17 wherein the proximal body, sleeve, and locking member are removeably connectable to the stem.
19. The modular hip prosthesis of claim 16 wherein the sleeve is radially flexible.
20. The modular hip prosthesis of claim 19 wherein the sleeve includes a plurality of longitudinal slots.